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Title: Using Task Analysis to Understand the Data System
Operations Team

Abstract

The Data System Operations Team (1) SO'1') currently monitors and controls the Multi Mission Ground Data System (MGDS) at NASA's Jet Propulsion Laboratory. The MGDS currently supports five spacecraft and within the next five years it will support ten spacecraft simultaneously. The ground processing element of the MGDS consists of a distributed UNIX-based system of over 40 nodes and 100 processes. The MGDS system provides operators with little or no information about the system's end-to-end processing status or end-to-end configuration. The lack of system visibility has become a critical issue in the daily operation of the MGDS. A task analysis was conducted to determine what kinds of tools were needed to provide DSOT with useful status, information and to prioritize the tool development. The analysis provided the formality and structure needed to get the right information exchange between development and operations. This paper describes how even a small scale task analysis can improve developer-operator relations and the challenges associated with conducting a task analysis in a real-time mission operations environment.